

Identifying victims of firearm assault in Indianapolis through police and clinical data

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Statement of Purpose: The largest obstacle to advancing the scientific understanding of firearm assault is the lack of integrated and reliable data. This study links police and clinical data to fill this gap.

Methods/Approach: A descriptive study of firearm assault victims; Indianapolis, Indiana between 2014 – 2016 (N=1469). Clinical data were accessed from Indiana Network for Patient Care (INPC) that captures ER visit data from all hospital systems within Indianapolis. Police data were obtained from the Indianapolis Metropolitan Police Department (IMPD) and linked to INPC using individual identifiers and deterministic and probabilistic linkage. Assault victims were identified based on ICD 9/10 diagnoses and police report title (Aggravated Assault-Gun, Armed Robbery). Keywords (gunshot, person shot, etc.) were searched in both INPC and IMPD text fields. Descriptive statistics of sociodemographic characteristics were calculated for all firearm assault victims. The overlap and non-overlap within the clinical and police data systems are described and multivariable analyses conducted.

Results: The majority of firearm victims in both police and clinical systems were of minority race (84%) and male (89%). Results indicate that of the 1,469 firearm assaults identified in police data, 1,250 (85%) had an ED encounter within 24 hours. Of those 1,250 encounters, 1,076 (86%) included a diagnosis code indicating a gunshot wound mechanism, however, only 417 (33%) of these were coded as an assault-related diagnosis code.

Conclusions: These findings indicate the need to use and link both police and clinical data to better identify firearm assault victims. These linked data allow us to measure a broader set of correlates among firearm assault victims.

Significance and Contributions to Injury and Violence Prevention Science: This study links police and clinical data at the individual level and gives us an unprecedented ability to identify and describe characteristics of firearm assault victims in the police and clinical systems.

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